

## **REMARKS/ARGUMENTS**

### **A. Summary of the Amendment**

This preliminary amendment is also a full and timely response to the final Office Action dated March 26, 2004. Reexamination and reconsideration are courteously requested. Claims 1 to 6, 11 to 15, 21 to 23, 25, and 27 to 28 were pending. By way of the present amendment, claims 1 to 2, 11 to 12, 14 to 15, 21, and 23 are amended. Further, claims 29 to 39 are added and claims 3 to 6, 13, and 22 are canceled. Thus, claims 1 to 2, 11 to 12, 14 to 15, 21, 23, 25, and 27 to 39 remain pending for the Examiner's consideration, with claims 1, 11, 14, 15, 21, and 25 being independent claims.

### **B. Allowable Subject Matter**

The examiner has acknowledged that claims 25, and 27 to 28 are directed to allowable subject matter. Applicants thank the Examiner for a through examination of these claims.

### **C. Rejections Under 35 U.S.C. § 103(a)**

Claims 1 to 5, 11 to 12, 14, and 21 to 23 are rejected as being unpatentable over U.S. Patent No. 5,700,180 ("Sandhu") in view of U.S. Patent No. 5,916,016 ("Bothra"), and these rejections are respectfully traversed for reasons set forth below. Claims 6 and 13 were rejected, but those claims are canceled rendering the rejections moot. Claim 15 is rejected as being unpatentable over Sandhu in view of Bothra and U.S. Patent No. 5,660,672 ("Li"), and this rejection is respectfully traversed for the reasons set forth below.

Independent claims 1, 11, 14, 15, and 21 individually recite the feature of a signal, detector, or sensor sweeping or being positioned to sweep entirely across a wafer front surface from the wafer leading edge to the wafer trailing edge due to rotation of a platen, and the prior art fails to teach or suggest at least this feature. Sandhu is cited for disclosing a plurality of light

transmitter units 62 that measure wafer topography during polishing and are coupled to an interferometer. Yet, Sandhu fails to teach or suggest that rotation of a platen will cause a single light transmitter unit 62 or other measurement device to sweep entirely across the wafer.

One advantage provided by the invention, and not mentioned in the prior art, is the ability for a single measurement device, such as an interferometer component, a temperature probe, or an eddy current sensor, that enables a processor to predict the entire wafer topography from a single sweep of the device entirely across the wafer front surface, beginning at the wafer leading edge and ending at the wafer trailing edge. The efficient determination of the wafer topography, coupled with the present invention's multiple concentric plenum configuration in the wafer carrier, allows for fast polishing adjustments to specific wafer areas. Dependent claims 29 to 30 further define the invention by establishing how the processor predicts the wafer topography, and the features of those claims further distinguish the invention from the prior art. In a more basic sense, Sandhu fails to teach or suggest the features of the independent claims or the objects or the advantages that such features would provide. Bothra and Li fail to compensate for the deficiencies of Sandhu. For at least these reasons, it is respectfully requested that the rejections of the claims be withdrawn.

#### H. Conclusion

In view of Applicant's amendments and remarks, it is respectfully submitted that Examiner's objections and rejections have been overcome. Accordingly, Applicants respectfully submit that the application is now in condition for allowance, and such allowance is therefore earnestly requested. Should the Examiner have any questions or wish to further discuss this application, Applicants request that the Examiner contact the Applicants attorneys at the below-listed telephone number.

If for some reason Applicants have not requested a sufficient extension and/or have not paid a sufficient fee for this response and/or for the extension necessary to prevent abandonment on this application, please consider this as a request for an extension for the required time

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period and/or authorization to charge Deposit Account No. 50-2091 for any fee which may be due.

Respectfully submitted,

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